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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/790,441	03/01/2004	Alan Flum	488-191	9790
29540	7590	07/22/2009		
DAY PITNEY LLP 7 TIMES SQUARE NEW YORK, NY 10036-7311			EXAMINER LEGASSE JR, FRANCIS M	
			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/790,441	Applicant(s) FLUM ET AL.	
	Examiner FRANCIS M. LEGASSE JR	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 April 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5 and 17-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 4, 5 and 17-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Status of Claims

Claims 2 and 6-15 are cancelled.

Claims 1, 4, 5 and 17 are amended.

Claims 1, 4, 5 and 17-20 are pending.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 1, 4, 5 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Simon et al. (US Patent No. 5,900,930, "Simon", hereinafter) in view of Ornellas et al. (US 20040238725 A1, "Ornellas", hereinafter).

Regarding Claim 1, Simon et al. teach (see Fig. 1) a controller comprising: a rotatable platter (21) journaled for rotation, said rotatable platter including a top surface (see Fig. 1) and a side circumferential skirt (22) substantially perpendicular to said top surface (see Fig. 1); an optical system comprising a lens (28), an image sensor (in camera (24)), a light source (26) and a signal processor (see Col. 3, lines 32-52) responsive to said rotatable platter; said optical system being positioned to optically acquire surface sequential images from said side circumferential skirt (see Fig. 7) and calculate differences in said sequential surface images thereby determining the direction and relative magnitude of rotation of said rotatable platter (see Fig. 7); and said optical system including an output responsive to said rotatable platter (see Fig. 7).

Simon fails to teach that the circumferential skirt includes a random pattern.

Ornellas (*figure 4a*) discloses a controller comprising a rotatable platter (180) wherein the rotatable platter contains a skirt (surface) that includes a random pattern ([0031]).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to use the random pattern in the device of Simon because it will enable the controller to be used in any particular environment, thus making it more adaptable to different devices or functions.

Regarding Claim 4, Simon as modified by Ornellas teaches (Simon: Fig. 7) said optical system is responsive to rotational velocity (124) of said rotatable platter.

Regarding Claim 5, Simon as modified by Ornellas teaches (Simon: Fig. 7) said optical system is responsive to rotational position (122) of said rotatable platter.

Regarding Claim 18, Simon as modified by Ornellas teaches said light source is a light emitting diode (LED) (see Col. 3, lines 53-62).

Regarding Claim 19, Simon as modified by Ornellas teaches said optical system is an optical navigation system (based on angular position- see Fig. 7).

Regarding Claim 20, Simon as modified by Ornellas teaches a controller that may be used for any situation where the sensing of the angular position of a rotating body is required or beneficial (*see Col. 2, lines 17-24*) but fails to teach the controller used for a disk jockey application.

It is well known in the art that disk jockey devices utilize knobs and other rotational user input devices.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the controller used for a disk jockey application, in the device of Simon et al., to apply the device of Simon to any device utilizing an angular input component for greater versatility.

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Simon in view of Ornellas, as applied to claim 1, and in further view of Hinckley et al. (US Patent No. 6,844,871, "Hinckley", hereinafter).

Regarding Claim 17, Simon as modified by Ornellas teaches a controller comprising a rotatable platter containing a random pattern approximately parallel to the axis of rotation but fails to teach a stationary base, wherein the optical system is fixed to with respect to the stationery base and that said rotatable platter has at least one degree of freedom of movement in addition to rotation, an extent of movement of said at

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least one degree of freedom of movement being determined by said optical system optically acquiring sequential images from said random pattern of said side circumferential skirt.

Hinckley teaches a similar device with determining various freedom of movements based on acquiring sequential images (see Col. 7, lines 49-59) of a textured pattern (see Fig. 28-32) including rotational movement (see Fig. 23 and Col. 11, lines 33-47) and at least one degree of freedom of movement (tilt) (see Fig. 13, 16) in addition to rotation, an extent of movement of said at least one degree of freedom of movement being determined by said optical system optically acquiring sequential images (see Col. 10, line 48 to Col. 11, line 12).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to provide said rotatable platter having at least one degree of freedom of movement in addition to rotation, an extent of movement of said at least one degree of freedom of movement being determined by said optical system optically acquiring sequential images from said circumferential skirt, as taught by Hinckley, in the device of Simon as modified by Ornellas because it will provide improved sensing of the positional status of the rotatable platter for greater versatility of sensing.

Simon as modified by Ornellas and Hinckley fails to teach a stationary base, wherein the optical system is fixed with respect to the stationary base.

It is common knowledge in the art to attach an optical system to a stationary base.

It would have been obvious to one of ordinary skill in the art at the time the

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invention was made to use an optical system attached to a stationary base in the device of Simon as modified by Ornellas and Hinckley because it will ensure that the optical system is properly secured, thus enabling the device to provide accurate and reliable measurements.

Response to Arguments

Applicant's arguments with respect to claims 1, 4, 5 and 17-20 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Francis M. LeGasse Jr whose telephone number is

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(571) 272-9798. The examiner can normally be reached on Monday through Thursday 7:00 am to 5:30 pm E.S.T.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Y. Epps can be reached on (571) 272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Francis M. LeGasse Jr.
Patent Examiner AU 2878
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/Thanh X Luu/
Primary Examiner, Art Unit 2878